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SECTION 200.00 – PREPARATION AND SUBMITTAL OF REPORTS

SECTION 210.00 – MATERIALS PHASE REPORTS

210.01 Requirements. A series of Materials Phase Reports is required for development of highway projects. Each report represents a different phase of project development. Following is a listing of these reports.

- Phase I - Geologic Reconnaissance Report
- Phase II - Soils Investigation
- Phase III Pavement Estimating Report
- Phase IV - Foundation Investigation
- Phase V - Special Provisions
- Phases I (R) Rehabilitation for Pavement Report (refer to [Section 225.00](#))

In addition, for corridor or location studies on new alignments, a geologic reconnaissance report is typically prepared well in advance of Phase I.

A major emphasis is the reduction of pavement deficiencies. From a project development standpoint, pavement rehabilitation projects are commonly referred to as “Circle M” projects. “Circle M” is a project development designation for a project the main purpose of which is to improve the cracking and rutting indexes of the roadway; i.e. pavement rehabilitation. Projects meeting certain criteria (\$/ln-mi, surface work only, etc.) are given the Circle M designation; however, the Circle M designation in and of itself does not represent a design standard. The Circle M designation does not justify the omission of any steps in the design process, including the submission and review of Materials Reports.

1R (Pavement Rehabilitation) is the minimum design standard required for a project to qualify for federal funding. The 1R standard requires that a project be designed for a minimum of an 8 year design life. The [Design Manual](#) states that the primary goal of the 1R standard is to rehabilitate pavements where a maintenance treatment would not be cost effective, but has not yet deteriorated to the point of needing major treatment or reconstruction. All projects with a 1R Design Standard are designated Circle M projects, but the Circle M designation does not necessarily imply a 1R Design Standard. State funded Circle M projects not on the NHS are not required to meet the 1R Design Standard.

A project may also require guardrail, shoulder work, etc. Such work must be paid for from a separate funding category than that receiving the Circle M designation. Otherwise, the project no longer qualifies as a Circle M.

The 3R (Resurfacing, Restoration, and Rehabilitation) design standards (NHS and Interstate) are intended to extend the service life of the existing highway and, at the same time, improve highway safety by making selective improvements to highway geometry and roadside features. A project meeting the 3R NHS standard can have as little as an 8 year design life, but any less than a 20 year design life must be justified.

The State Design Standards cover federally funded projects not on the NHS. Minimum design standards for state funded projects not on the NHS are not identified for use on a statewide basis. Appropriate design standards for state funded projects not on the NHS are as determined by the District or on a project specific basis.

The requirements for submittal and approval of Materials Phase Reports are as follows:

Approved Materials Phase Reports are required for all federally funded projects including those not on the NHS.

State funded projects which are on the NHS require the same level of standards, design, and review as federally funded projects. Approved Materials Phase Reports are required for these projects.

The State Design Standard for non-NHS routes is a 20 year design life for reconstruction and 10 years for rehabilitation. State funded minor rehabilitation projects not on the NHS do not necessitate HQ concurrence.

All Materials Phase Reports and investigations will be conducted to the appropriate level of detail for the specific project regardless of who has approval authority.

Approval authority for Materials Phase Reports is summarized in [Table 200.01.1](#).

TABLE 200.01.1
PHASE REPORT APPROVAL AUTHORITY

Simple and Complex projects are defined in [Section 315 of the Design Manual](#).

<u>Funding / Route</u>	Federal Funding on NHS	Federal Funding on Non- NHS	State Funding on NHS	State Funding Non- NHS
SIMPLE				
Rehabilitation/Restoration	HQ	HQ	District	District
Overlay	HQ	HQ	District	District
CRABS	HQ	HQ	District	District
Turn Bays	District	District	District	District
Traffic Signals and Signs	District *	District *	District *	District *
Minor Intersection Improvements	District	District	District	District
Minor Widening	District	District	District	District
Minor Bridge Replacement	HQ	HQ	District*	District *
COMPLEX				
New Routes	HQ	HQ	HQ	District *
New Alignments	HQ	HQ	HQ	District *
Reconstruction	HQ	HQ	HQ	District *
Enhancement	District *	District *	District *	District *

* HQ approved Phase IV report may be required

Elimination of Phase Reports for projects on the NHS shall require a waiver approved by HQ.

All Phase Reports should be submitted to HQ Materials so that copies of all Phase Reports can be stored in and distributed from one central location. The elimination of any Materials Phase Report should be evaluated and justified on a case by case basis.

The HQ Materials Section has the responsibility to review and comment on every report, regardless of Approval Authority. In the case of Phase Reports for District Approved projects, the Phase Reports may be rejected by Headquarters Materials. In this situation, project development shall not proceed until acceptable reports are developed.

All structural elements of the roadway should be designed and all minimums and maximums provided in the Materials Manual should be adhered to regardless of the source of funding. The exception to this rule is defined by [Section 540.03](#), which, for projects such as railroad crossings, allows the pavement structure to meet or exceed that of the surrounding roadway.

Further information, such as which types of construction/ reconstruction/ rehabilitation/ maintenance procedures are eligible for specific projects (with respect to funding program), is available upon request. It is not the purpose of this manual to cover such policies.

The ITD Materials Section recognizes the need for the prompt review and return of comments on Materials Reports and Design Reviews.

Guidance on development of Phase Reports is included in [Table 200.01.2](#).

TABLE 200.01.2							
PHASE REPORTS FOR WORK CATEGORIES							
WORK CATEGORIES *	PHASE REPORTS						
	I	LCCA	II	III	IV	V	Geotechnical
Pavement (Roadway)							
Reconstruction	X	X	X	X		X	
Rehabilitation (Pvmt Rehab)	X*****	X		X		X	
New Construction	X	X	X	X		X	
New Alignment	X	X	X	X		X	
Improved Maintenance				X		X	
Emergency Relief			X	X		X	X
Structures							
New / Reconstruction **	X		X	X	X	X	
Structure Rehabilitation ***					X	X	
Deck Rehabilitation						X	
Improved Maintenance						X	
Geotechnical							
Special Situation; Landslide, Slope Stability, Large Embankment, etc.							X
Rockfall Mitigation						X	X
Retaining Structure							
Major					X	X	
Minor; <10' high			X			X	
Railroad Crossing			X	X		X	
Bike Path / Enhancement ****			X	X		X	
CMAQ							
New Construction			X	X		X	
Improved Maintenance				X		X	
Maintenance							
	none						

* A project may include more than one work category. As such, appropriate reports should be prepared to ensure that all issues are addressed. Appropriate reports apply on ER projects. HQ concurrence should be obtained on all report waivers.

** A Life Cycle Cost Analysis should be prepared for structure projects with greater than 500' approaches. The Life Cycle Cost Analysis should address pavement type and/or pavement rehabilitation options. For a new structure on the same alignment as the existing structure with less than 500' approaches (500' per approach), a waiver of the Phase I report should be requested.

*** A Phase IV report is required only if rehabilitation of a foundation is involved.

**** Refer to Design Manual for addressing specialized inspection (Idaho Association of Building Officials, etc.)

***** Phase I (R) Rehabilitation for Pavement Report.

In regards to projects for which the main purpose is major widening to add lanes, the ITD Life Cycle Cost Analysis computer program includes a Widen and Overlay subroutine for evaluating this option. On such projects, the condition of the existing roadway should be evaluated. The widen portion of the project should be evaluated as new construction and the existing pavement should be evaluated for new/reconstruction or rehabilitation.

Submit Phases I through V reports at the proper time and in the proper sequence. The Project Activity Flow Chart ([Design Manual, Figure 4.1](#)) and Project Development Checklist ([Design Manual, Figure 4.2](#)) indicate the relationship of the individual phase reports to the other elements of project development. If alignments are established, phase reports can be initiated earlier than the network shows. Only the Phase I report can be completed prior to Preliminary Design Review and is intended to be attached to the Concept Report.

Phase I reports or abbreviated Phase I reports are normally needed on all projects. **Elimination of the Phase I report must be approved by the Headquarters Materials Section.** For projects involving new construction, reconstruction, or rehabilitation of pavement, [Section 540.00](#), Pavement Structure Analysis and [Section 541.00](#), Life Cycle Cost Analysis alternatives will be incorporated into the Phase I report.

Preliminary Phases II and IV reports may be prepared to provide guidance to designers before the project concept is finalized. These reports typically document partial investigations and are retained as part of the file. A working relationship should be established with the designer to determine the amount of preliminary information that can be made available prior to publishing the official reports.

Manual [Sections 220.00](#) through [260.00](#) present the format for the individual phase reports. These sections are to be used as guidelines and checklists for preparation of the reports.

As a minimum, the report must address all subjects in the manual sections. This will assure users and reviewers that no subject was overlooked. If a subject is not applicable to a particular project, indicate the reason(s); do not use N/A (not applicable). Include a Table of Contents in each report. Abbreviated Phase I and II reports may be appropriate for types of projects where addressing all subjects is of limited value.

Complete, well written reports, with supporting data included, normally take less time to review, thus shortening the turn around time. If the reviewer has to guess how the conclusions were developed, the review time can increase significantly.

210.01.01 Materials Reports Prepared by the District. The District Materials Engineer will submit four copies of all phase reports (6 copies for Phase IV reports) to the Headquarters Materials Engineer for review. After resolution of differences with the districts, an approved, or joint, materials report will be issued by the Headquarters Materials Section. When requested by the districts, portions of reports may be prepared by the Headquarters Materials Section and transmitted to the District Materials Engineer for review before issuing the joint report.

Distribution of the reports and/or transmittal letters is left up to the District. However, it is suggested a copy of the transmittal letter and report be retained by the District Materials Engineer and copies of the transmittal letter be routed to the DE, ADE, PDE, and any others deemed necessary.

Seal coat and stockpile project reports and some State funded project reports, as outlined above, do not require a review. Typically, the report and transmittal letter are addressed to the Project Development Engineer with a “courtesy” copy sent to the Materials Engineer. Unusual specifications or designs should be discussed with Headquarters Materials by telephone, e-mail, or at a joint review in the district. If Headquarters Materials has questions or comments on routine projects after reviewing the report, the questions or comments will be sent to the District Materials Engineer. All reports that are submitted to Headquarters Materials, regardless of type or whether approval is required, will be reviewed and returned with comments. Following the review, a copy of the joint Materials Report is transmitted by Headquarters Materials to the Roadway Design Engineer with the original to the District Materials Engineer.

210.02 Distribution of Joint Materials Reports. Joint materials reports are addressed and distributed as follows by HQ Materials:

- Phases I, II, III, and V

A report with cover letter addressed to District Materials Engineer

Copy of cover letter only to Assistant District Engineer.

Copies with report to the Roadway Design Engineer, District Project Development Engineer, and FHWA (full oversight projects only).

- Phase IV

A report with cover letter addressed to Bridge Design Section.

Copy of cover letter only to the Assistant District Engineer

Copies with report to Roadway Design Engineer, District Project Development Engineer, District Materials Engineer, and FHWA.

Joint Phase IV reports for buildings are addressed to the Facilities Management Bureau Chief.

210.03 Draft Reports Prepared by the District. To expedite review on complex projects, phase reports (particularly Phases I, II, and IV) may be submitted to the Headquarters Materials Section in draft form. The Headquarters Materials Section will review and return the draft report with comments to the district. Following necessary revisions, the final phase reports are then prepared and submitted as outlined above. Draft reports are typically unsigned, often incomplete, and will not be included in the project file. They should be clearly marked, or stamped, “DRAFT” to avoid confusion with later submittals. Draft reports may also be e-mailed to the Headquarters Materials Project Development Engineer.

On projects of average complexity, there is little need to prepare draft reports. Therefore, the use of draft reports should be limited to those projects of above average complexity and where the review process will be clearly enhanced by their submittal. Questions arising on these types of projects should be addressed to the individuals in the Headquarters Materials Section with the expertise to assist.

210.04 Revisions to Reports Prepared by the District. When revisions to the joint materials report become necessary, the revisions will be discussed with the district by telephone, e-mail, and/or in a field review. After differences are resolved, the Headquarters Materials Section prepares full page submittals, with the changes noted by an asterisk and explained in a cover letter. This will permit full page deletions and additions to the existing report.

Revisions and additions may also be made by addendum to a previously approved report. Following Headquarters Materials Section review and approval or revision, addenda are transmitted as outlined in [Section 210.02](#). The addenda shall be attached to the front of and made a part of the joint report.

210.05 Consultant Reports. Consultant-prepared phase reports follow the same procedures as those prepared by the district. “Acrobat” format is suggested for electronic review of consultant reports. ITD review of consultant materials reports is necessary for the purpose of approval or concurrence as described previously in this chapter. This section covers the additional issues inherent to consultant reports.

Except for the Phase V report, consultant-prepared Materials Phase Reports may be submitted in the consultant’s standard format. The format used by the districts for each Phase Report, as shown in this manual shall serve as a checklist for the consultant to ensure that significant conditions are considered and covered in the report. The consultant is encouraged to use a format that is similar to the Materials Manual to allow more efficient review by ITD. However, the format for the specifications in the Phase V Special Provision report shall be in accordance with the standard format used by ITD.

Consultants are advised to anticipate the time and effort necessary for draft reviews and possible resubmittal of Materials Phase Reports in their scope of services. Some projects require ITD Materials review of consultant draft submittals prior to publication to the designer.

On highly complex and unusual projects, preliminary report(s) to summarize partial investigation are appropriate. Such reports are for ITD Materials review only and are for the purpose of facilitating ongoing investigation rather than design. An ITD Materials draft review of these prior to final stamp and signature by the consultant should be performed.

Consultants submit five (5) stamped and signed copies of each report to the District Project Development Section.

District Project Development Section transmits all copies to the District Materials Engineer. District Materials reviews the report and resolves differences with the consultant. Four (4) copies (5 copies for Phase IV reports) are then transmitted to the Headquarters Materials Section with the District Materials Engineer's concurrence and/or comments clearly covered in the transmittal letter. One copy is kept on file by the District Materials Engineer.

The Headquarters Materials Section reviews the reports and transmits one (1) copy to District Materials (Bridge Design Section for Phase IV reports) as an approved materials report or as approved pending receipt of an addendum addressing comments. Reports which are not approved are transmitted to District Materials, with recommended changes and additions, for return to the consultant. The consultant must receive copies of the reports that have been marked up with comments by both the district and headquarters reviewers as well as comments covered in transmittal letters so corrections can be made. Where recommended changes are minor, i.e., additional information or justification for recommendations, the Headquarters Materials Section may approve the report subject to receipt of an addendum addressing comments.

Orderly development of the Materials Phase Reports is essential to project development and review. Consultant-developed phase reports are to be submitted in accordance with the Design Manual requirements. Multiple phase reports will not be accepted as a package. To avoid delays, it is essential that these reports be developed quickly and individually, and reviewed quickly but thoroughly as each phase is completed. Draft reports will be submitted to and reviewed by the District Materials Engineer and returned to the consultant with comments or forwarded to the Headquarters Materials Section by the district depending on the situation.

The District and, if requested by the District, Headquarters Materials personnel will work closely with each consultant from the inception of the project. Consultants should contact the District Materials Engineers and review with them the project geology and investigation requirements prior to developing their scope of services. An exploration plan shall be reviewed with District Materials and/or Headquarters Materials Sections prior to beginning field exploration.

A consultant report is considered to be a final product as purchased from the consultant by ITD. Consultant reports are signed and sealed by a Professional Engineer licensed in the State of Idaho; however, become the property of ITD upon approval. Consultant reports should make recommendations within the context of ITD requirements. ITD Materials reserves the right to make minor modifications to the recommendations of the report by cover letter.

Consultants are expected to perform their own internal reviews equal in effort to that which would be provided to any other client.

Draft submittals, subsequent to internal consultant review, for local roads projects of average complexity may be appropriate in the interest of timeliness of approvals.

The purpose of reviewing Materials Reports prepared by the consultants is to ensure their completeness and that they comply with the state standard and common practices of design and construction of roadways and structures. The review and approval of consultants' reports by the state will not release the consultant from their responsibility for their recommendations and the accuracy of the content of the reports.

210.06 Professional Responsibility. The requirements provided in [Section 200.00](#) should be considered as the minimum required and is intended as a guide to ensure a thorough analysis of the project. It is also the intent of this chapter to provide uniform and consistent materials reports statewide.

These requirements are not intended as a substitute for experience and engineering judgment. The author must ensure the accuracy of the information and that an adequate investigation has been performed.

ITD Materials recommendations are intended to address completeness and to ensure reports and projects meet the appropriate requirements. All Materials comments are to be addressed to the satisfaction of the District Materials Engineers and Headquarters Materials.